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Tracy et al.

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[54] **DESK PAD AND PROCESS FOR MAKING THE SAME**

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[52] **U.S. Cl.** **108/26,** 312/231

[51] **Int. Cl.** **A47b 85/00,** A47b 27/00

[58] **Field of Search** 108/26, 26.2; 312/231, 232, 196; 248/204; 24/DIG. 11; 211/153, 69.7

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[57] **ABSTRACT**

Desk pad of a polymeric material having a plurality of receptacles for holding pencils, pens, paper clips, rubber bands, etc., integrally molded to one side of a flat rectangular writing surface. The two sides of the wirting surface adjacent the receptacles are provided with molded ridges to ensure structural rigidity. The remaining side of the writing surface curls under in perpendicular fashion to abut the drawer side of the desk surface. The desk pad can be affixed to the desk by using two-way adhesive tape. Also disclosed is a vacuum-forming process for making the desk pad.

4 Claims, 4 Drawing Figures

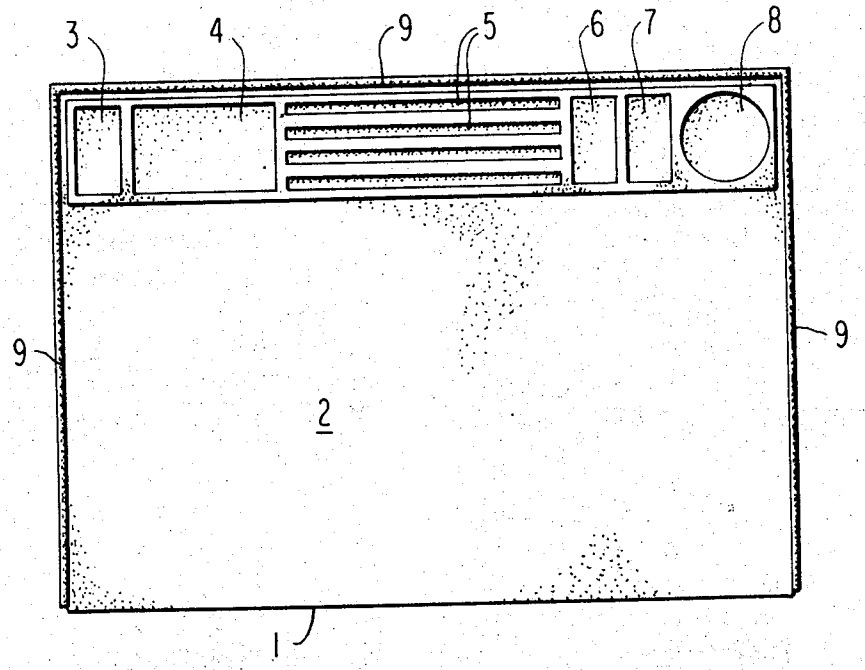


FIG. 1

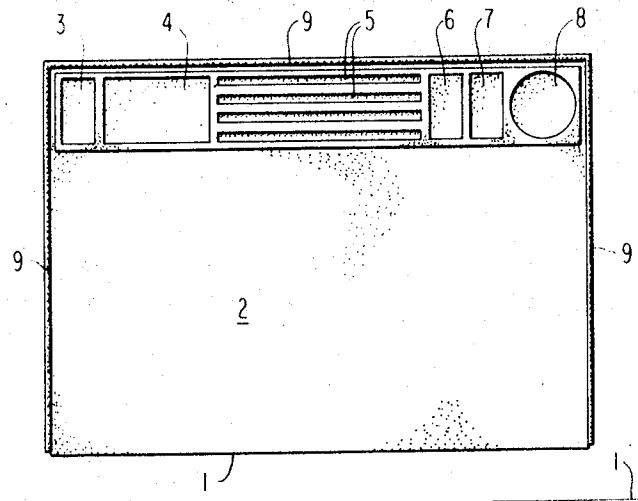
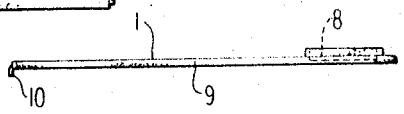


FIG. 2



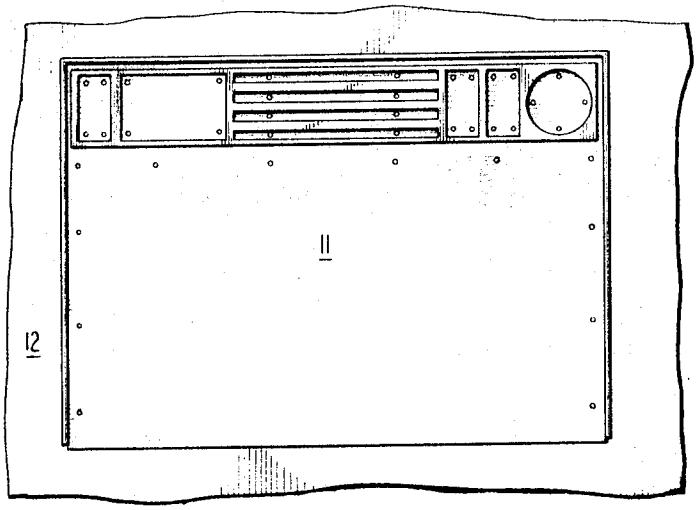


FIG. 3

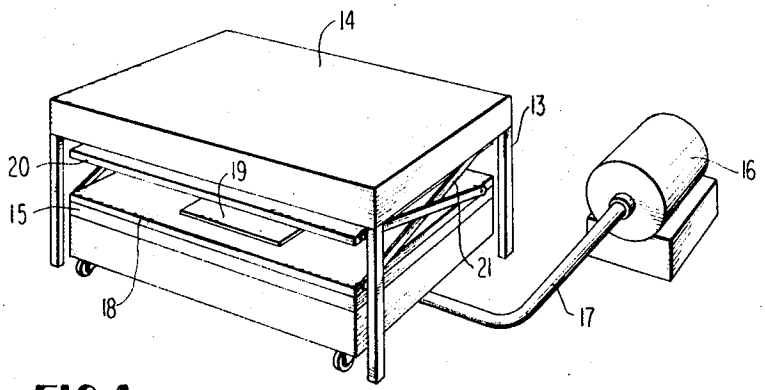


FIG. 4

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DESK PAD AND PROCESS FOR MAKING THE SAME

BACKGROUND OF THE INVENTION

The conventional desk arrangement includes a flat writing surface and a plurality of drawers disposed therebelow adapted to contain the usual office sundries. The writing surface is usually covered with the traditional blotter-type pad. Although having certain aesthetic qualities, it frankly does not facilitate efficiency or tidiness. The typical office desk employing the conventional arrangement is generally messy with pencils, paper clips, pens, rubber bands, staplers, scissors, etc., strewn from one corner to the other. In addition, the desk pad slides from its preferred location. If, by chance, a person is meticulous, a clean desk can be achieved at the expense of opening and shutting drawers to retrieve or replace each and every desired item. However, in spite of all precautions, the desk pad inevitably collects and absorbs dirt, dust and residue. Thus, the pad, or at least the blotter portion thereof, must be occasionally replaced. Moreover, since the pad often comprises leather or paper material, replacement is eventually dictated by wear.

SUMMARY OF THE INVENTION

It is the aim of the present invention to avoid the aforementioned problems and disadvantages and to provide a simple, durable, efficient and relatively inexpensive desk pad.

Furthermore, an object of the present invention is to obviate the prior art lack of designated storage space on the surface of a desk.

The present invention also aims to eliminate dirty and untidy writing surfaces.

A further object of the present invention is to provide a writing surface and receptacle combination having excellent aesthetic properties.

Finally, the present invention aims to obviate the problem of sliding desk pads.

These problems are solved by the instant desk pad, comprised of a plastic polymeric material, in which a receptacle or series of receptacles are integrally molded with a writing surface. In preferred embodiments, the writing surface is rectangularly shaped with a plurality of receptacles serially arranged along one side thereof. The receptacles may be adapted to house or contain any desired articles. A further embodiment provides for molded ridges running the length of the two sides of the writing surface perpendicular to the receptacles. These ridges provide structural rigidity. The present invention can be further modified by providing a lip portion extending downwardly from the remaining side of the writing surface adapted to abut the drawer side of the desk surface. This lip portion, in conjunction with the application of two-way adhesive strips, secures the pad to the desk surface thereby preventing slippage.

The present invention also relates to a process for producing the desk pad in which a mold is provided having the desired configuration, a formable plastic polymeric material is applied to the surface of the mold, a vacuum is applied to the mold and the polymeric material, and the resultant product is cured to yield the desk pad. Conventional vacuum forming apparatus may be employed to practice the process of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

These and further objects, features and advantages of the present invention will become more apparent from the following description when taken with the accompanying drawings which show, for purposes of illustration only, an embodiment in accordance with the present invention wherein:

FIG. **1** is a top plan view of one embodiment of the desk pad of the present invention;

FIG. **2** is a side elevation of the same desk pad;

FIG. **3** is a top plan view of the mold and platen used in the process of the present invention; and

FIG. **4** is a perspective view of one apparatus suitable for forming the instant desk pad.

DETAILED DESCRIPTION OF THE PRESENT INVENTION

Referring to the drawings, and in particular, to FIGS. **1** and **2**, a desk pad **1** in accordance with the present invention includes a flat rectangular writing surface **2** bounded on two sides by ridge **9**, which provides structural stability, and by serially-arranged receptacles **3–8** on a third side. The receptacles may be shaped to any desired configuration to contain office sundries or other desired articles. For example, receptacles **3–8** may be, respectively, adapted to contain calling cards, note cards, pens and pencils, rubber bands, paper clips, and a glass. Ridge **9** also bounds the receptacles thereby yielding additional structural rigidity. As can be seen from FIG. **2**, edge piece **10**, arranged to abut the drawer side of a desk, extends downwardly from writing surface **2**. This piece necessarily limits the forward movement of the desk pad **1**. The desk pad may be additionally fixed by providing two-way adhesive tape. Conventional two-way tape has two oppositely disposed adhesive sides each covered by a protective layer. During the manufacturing of the desk pad one protective layer may be removed and the adhesive tape applied to the back of the pad. When installation upon a desk top is desired, the remaining protective layer is removed and the pad positioned on the surface of the desk.

Although one embodiment of the invention has been illustrated in FIGS. **1** and **2**, various other changes may be made within the scope of the present invention. For example, the writing surface need not be rectangular. Since many modern day desks include circular or oval tops, a corresponding change in the shape of the writing surface may be preferred. In addition, the shape of the receptacle can correspondingly be changed. The receptacle(s) can also be arranged along other peripheral regions of the writing surface or may be positioned in the writing surface itself. Moreover, although ridge **9** and edge piece **10** are preferred, they may be eliminated.

The desk pad of the present invention may be formed of almost any plastic polymeric material known in the art, either thermosetting or thermoplastic. The material should preferably be moldable, i.e., susceptible to vacuum forming, compression or injection molding, etc. High impact polystyrene (including 5–10 percent polybutadiene or copolymer rubber) has been found to yield excellent aesthetic, molding and structural characteristics. Other suitable polymeric materials include, for example, styrene-acrylonitrile copolymers; hydrocarbon plastics like polyethylene, polypropylene and

block copolymers thereof; acrylic polymers such as poly(methyl methacrylate); mixed organic esters of cellulose like cellulose acetate-butyrate; phenolic resins; cellulose-filled urea and melamine resins; etc.

The desk pad of the present invention may be made by any process known in the art, e.g., compression molding, injection molding, vacuum molding or the like. Moreover, although the molding of the pad from a single piece of material is simpler and more economical, the individual portions of the pad may be separately fabricated and then combined in the desired manner.

In the preferred situation where the desk pad is to be constructed of a plastic polymeric material susceptible to vacuum forming, FIG. 3 illustrates a vacuum mold **11** positioned on the surface of a porous platen **12** through which a vacuum may be drawn. Vacuum mold **11**, which has a configuration corresponding to that of the desk pad to be formed, contains draft holes (represented by dots in FIG. 3) preferably located as indicated along peripheral areas of the depressed regions. Both the platen and the vacuum mold may be constructed of any material known in the art. The materials selected need only meet the vacuum and temperature restrictions imposed by the process.

Referring to FIG. **4**, vacuum-forming apparatus **13**, representative of one apparatus suitable for carrying out the process of the present invention, includes oven **14** for heating the plastic polymeric material to be molded and vacuum table **15** positioned below oven **14** which can be evacuated by means of vacuum tank **16** through line **17**. The top of vacuum table **15** is covered with porous platen **18** upon which vacuum mold **19** is positioned. Platen **18** and vacuum mold **19** correspond to their counterparts **11** and **12**, respectively, of FIG. **3**. Plastic sheet **20**, comprised of the plastic polymeric material from which the desk pad is to be formed, is locked into retractable frame **21** which is adapted to place plastic sheet **20** into contact with the surface of vacuum mold **19**.

The process of the present invention consists of placing a moldable polymeric plastic material in contact with a vacuum mold having a desired configuration, applying a vacuum to the mold and polymeric plastic material, and curing the resultant product thereby yielding a desk pad. With reference to the above-described apparatus, plastic sheet **20** is locked into retractable frame **21** and heated by oven **14** to the molding temperature. Retractable frame **21** then collapses to place plastic sheet **20** into contact with the surface of vacuum mold **19**. A vacuum is then applied by means of vacuum tank **16** through platen **18** and vacuum mold **19** to draw plastic sheet **20** into the contours of vacuum mold **19**. After an appropriate period of time during which the plastic polymeric material is cured, the resultant desk pad is removed from vacuum-forming apparatus **13**. In the event that the plastic sheet is larger than the mold surface, the extra plastic material may be removed after the curing operation. One technique which has been employed for this purpose is the use of a bandsaw or the like to trim the edges. In this connection, ridge **9**, as shown in FIGS. **1** and **2**, may be used as a locking means for holding the desk pad during the trimming thereof.

Although only one embodiment in accordance with the present invention has been shown and described, it is understood that the same is susceptible to numerous changes and modifications, some of which have been mentioned, as will be apparent to a person skilled in the art. Accordingly, the present invention is not limited to the details shown and described herein but intended to cover any changes and modifications within the scope of the invention as claimed.

We claim:

1. A desk pad of polymeric material comprising a substantially rectangular flat writing surface portion adapted to engage the top surface of a desk, a plurality of shallow receptacles substantially planarly disposed along one edge of said writing surface portion, friction means associated with the underside of one of said writing surface portion and said receptacles to restrict the movement of said desk pad when placed on the top surface of a desk, and projecting ridge means disposed along three edges of said writing surface portion other than said one edge to provide structural rigidity for and to maintain the planarity of said writing surface portion.

2. The desk pad of claim **1** wherein said projecting ridge means includes an engaging portion projecting downwardly in a direction opposite from the writing surface of said writing surface portion from the edge of said writing surface portion and being adapted to engage an edge of the top surface of a desk, and a pair of upwardly extending ridge portions disposed in parallel along the two sides of said writing surface portion perpendicular to said plurality of shallow receptacles.

3. The desk pad of claim **1** wherein said friction means comprises two-way adhesive tape.

4. The desk pad of claim **1** wherein said pad is a molded sheet of substantially uniform thickness.

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